

Scope of Work for a Study to Determine the Presence and Source of Human Pathogenic Viruses in the Recreational Waters of Mission Bay and Associated Health Risks

TASK	DESCRIPTION OF WORK
1. Study Design:	<p>Stakeholder Gathering (Non-Government Organizations, the City of San Diego, SDRWQCB, San Diego County Department of Environmental Health, San Diego State University, University of California at Irving, Southern California Coastal Waters Research Project):</p> <ul style="list-style-type: none"> • Meeting to design study to ensure its ability to answer management questions of interest with specified levels of scientific certainty. • Project and funds will be managed through contractual arrangements with SCCWRP, UC-I and SDSU. Funds will be distributed to the respective contractual agency upon completion of each study step. Data from studies will be submitted and reviewed bi-monthly by the stakeholder group.
2. Sampling and Analysis of Five Shoreline Points in Mission Bay:	<ul style="list-style-type: none"> • Study to determine the magnitude and extent of human fecal contamination in receiving water. • Study will distinguish human vs. non-human source of contamination • Study to be conducted during dry and wet weather periods.
3. Sampling and Analysis of <u>Source Inputs</u> to Mission Bay for Human-Specific Contamination:	<ul style="list-style-type: none"> • Study to identify <u>locations</u> and times at which human specific contamination is present. • Success of project steps 2 and 3 will be measured by the ability to verify or negate the presence of human pathogenic viruses and bacteria in Mission Bay and to <u>determine the locations of input for contamination.</u> • Success of project steps 2 and 3 will also be measured by the ability to qualitatively determine the presence of bacteria from canine, waterfowl and/or indigenous animals
4. Collaborative Epidemiology Study to Quantify Swimmer Health Risk at Specific Locations in Mission Bay:	<ul style="list-style-type: none"> • Epidemiology Study using data from scope of work steps 2 and 3 to determine actual associated threats to human health from swimming at bacterial contaminated beaches. • Success of project step 4 will be determined by the ability to identify relative risks to human health and to develop strategies to minimized these risks.
5. Data Analysis/Assessment and Final Report Generation:	<ul style="list-style-type: none"> • Compilation of viral study, source identification study and epidemiology study. • Success of the study will be measured by the ability to ascertain the presence of pathogenic viruses and bacteria in Mission Bay, the <u>probable source</u> of viral/bacterial contamination, the largest areas of input for contamination, and the relative risks of human disease associated with the identified contaminant.
6. Evaluation of Management Measures To Reduce Loads of Human-Specific Contributions to Mission Bay:	<ul style="list-style-type: none"> • Meeting of stakeholders to review data and to determine the most effective and efficient measures to <u>abate or control the contaminant inputs.</u>